

ABSTRACT OF THE DISCLOSURE

A low-cost, high-speed data switching system and method uses several parallel switching systems or fabrics. In one of various embodiments, for example, the constituent data flows in a data stream can be selectively routed to a switching fabric that has the lowest input data rate.

5 Data flows can be assigned to the various switching fabrics so as to balance the amount of data passing through each parallel system. Data flows can be re-assigned on an as-needed basis to insure maximum throughput. In the case where a data flow initially routed into one switching fabric must be re-routed to a different fabric, the ordering of data packets can be preserved by withholding the transfer of packets through the second fabric until the packets previously sent
10 into the first fabric have cleared. Methods and apparatus of the present invention find application to parallel computing as well.

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